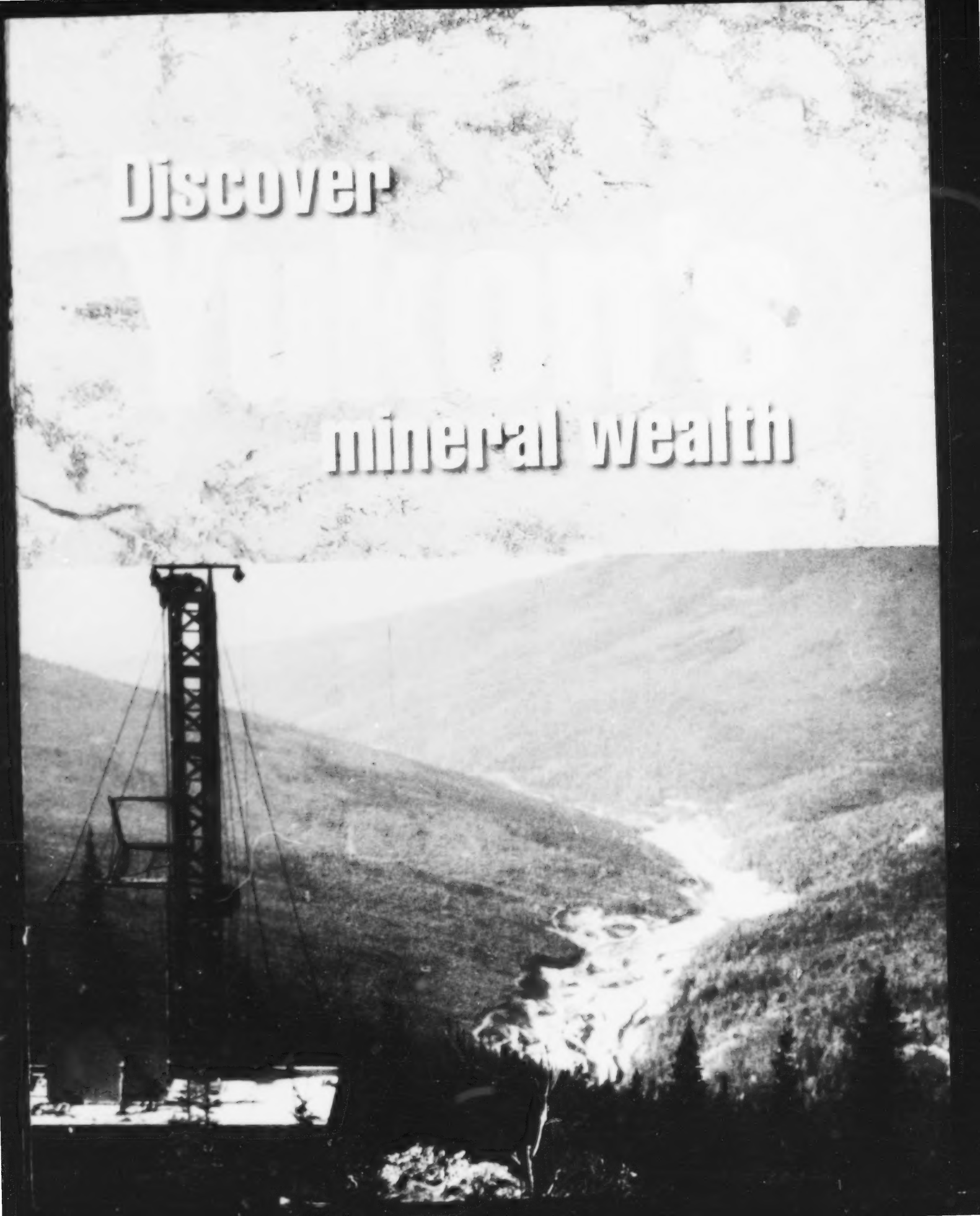
Discover

mineral wealth



WE HAVE THE GEOLOGY AND THE YUKON ADVANTAGE

The Yukon hosts numerous deposits that have been mined in the past, and the highly prospective geology continues to attract exploration interest. It lays claim to 2,700 known mineral occurrences and over 80 mineral deposits with established reserves, a number of which are world-class. The recent advances in mineral deposit modeling have brought fresh ideas about where and how to look for new deposits.

The territory's physical infrastructure includes over 4,800 km of all-weather roads, an international airport plus 10 community airports, proximity to two ice-free ports, a broadband telecommunications network and a stable, clean energy system.

The Yukon controls and administers its natural resources. Decisions about oil and gas, mining, lands, forests and water are made by Yukoners.

The Yukon offers favourable tax incentives and has established mining laws that provide secure mineral tenure and a single coordinated approach to environmental assessment. The territory continues to initiate improvements that make it a good place to do business. It also continues to develop a resource-permitting system that is as good as any in Canada, and is seeking resource industries' participation on ways to encourage new investment.

New initiatives are based on the principles of creating legal certainty, implementing regulatory efficiency, applying the principles of integrated resource management and providing responsive client services.

The Yukon is entering a new era of economic partnerships and investment opportunities that are based on government-to-government relationships with First Nations, who are becoming full partners in the territory's resource development.

If ever there was a good time to take a look, this is it. Come explore and discover the Yukon. ◆

GEOLOGICAL FRAMEWORK
OF THE YUKON

The Yukon is in the North American Cordillera. The high mineral potential of the territory is a product of the complex geological history of the relatively young chain of mountain belts that make up the western margin of the continent, from Alaska to Mexico. The complex geology of the Yukon and the North American Cordillera has resulted in its well-documented high mineral potential.

The Yukon is underlain by a diverse array of rock types that record nearly 2 billion years of geological history. Most rocks have been affected by folding, faulting, metamorphism, plutonism and uplift during various tectonic events. The complex arrangement of geologic terranes and the mountains we see today largely reflect the more recent events over the last 190 million years.

The Yukon is divided into two main geologic provinces. The northeastern portion consists largely of sedimentary sequences between 1.7 billion years (b.y.) and 300 million years (m.y.) old that were deposited along the western margin of the Ancient North American continent. The southwestern portion is a collage of late Paleozoic and Mesozoic arc, oceanic and pericratonic accreted terranes consisting mainly of igneous and metamorphic rocks between 350 and 190 m.y. old. Post-accretionary assemblages in both provinces include Mesozoic and Tertiary sedimentary successor basins and plutons. Following terrane accretion, strike-slip movement of at least 450 km along the Tintina Fault and at least 350 km along the Denali Fault, further disrupted these assemblages. ◆

Yukon Geological Survey

The mandate of the Yukon Geological Survey is to build, maintain and communicate the geoscience and technical information base required to provide stewardship and sustainable development of the Yukon's energy, mineral and land resources. The Survey contributes significantly to the geoscience knowledge base by collecting, compiling and distributing scientific and technical information on the geology and mineral deposits of the Territory.

Advances by the Yukon Geological Survey in the geoscience knowledge base of Yukon over the last ten years have resulted in a fourth-place ranking for geoscience databases in the country by the latest Fraser Institute Survey of Mining Companies. Most of the Survey's publications and databases are available for download from the internet *(geology.gov.yk.ca)* free of charge. Comprehensive, up-to-date databases include regional geology, regional stream geochemistry, mineral deposits, placer deposits, and mineral claims. These and other datasets can also be viewed online in the Map Gallery, the Yukon Geological Survey interactive map server. Metallogenic summaries of the principal Yukon mineral deposit types are also available as 11x17-inch "placemats" and as summary articles.

MINERAL EXPLORATION PAST & PRESENT

The Yukon hosts significant deposits of gold, copper, lead, zinc, silver, tungsten and coal. One of the world's largest iron ore deposits is in northeastern Yukon. The Selwyn Basin is one of the world's largest undeveloped lead-zinc districts. Significant volcanogenic massive sulphide deposits are found in the Finlayson Lake district; five of these deposits have been discovered over the last decade and more will undoubtedly be found. Mactung and Cantung on the border of the Northwest Territories contain about 15 per cent of the world's known tungsten reserve.

The complex and varied geological terranes underlying the Yukon are host to a number of past-producing mines and numerous showings and occurrences of various minerals. Gold, silver, copper, tungsten, asbestos, cadmium, lead and zinc have been produced in the past, but occurrences of barite, coal, iron ore, platinum group elements, nickel, molybdenum and gemstones attest to the varied and untapped mineral richness of the Yukon. The most recent developments and refinements to mineral deposit models have created a new perspective for mineral deposit exploration in the Yukon.

Production

High-grade silver-lead veins discovered in the Keno Hill area in 1906 led to the intermittent production of 6,769 tonnes of silver, 273,622 tonnes of lead, 153,198 tonnes of zinc and 1,800 tonnes of cadmium from 16 underground mines and several open pits between 1921 and 1988.

Chrysotile asbestos was discovered in 1887 at Fortymile Creek. The Clinton Creek asbestos mine produced over 940,000 tonnes of cement-grade asbestos fiber from 1967 to 1978.

Copper, silver and gold in skarn deposits were first discovered in the Whitehorse Copper Belt in 1897. Following extensive exploration in the 1950s, there was open-pit and underground mining between 1967 and 1982, during which an estimated 123,000 tonnes of copper, 90 tonnes of silver and 7 tonnes of gold were extracted from 10.3 million tonnes of ore.

Massive sulphide sedimentary-exhalative zinc-lead-silver deposits were discovered in the Anvil Range in 1953. While in operation between 1969 and 1998, the Faro mine was one of the world's largest zinc mines, producing up to 3 per cent of world zinc supply.

Smaller mining operations have been in production throughout the years, attesting to the prospectivety of Yukon geology to host mineral deposits.

Placer mining has played a vital role in the Yukon's economy for over 100 years. Since 1886, in excess of 20 million crude ounces (600 million grams) of placer gold have been produced in the territory. Most of the placer operations are small and family-run.

Significant Yukon mines in operation since 1960

Name	Operating periods	Main commodities
Brewery Creek	1996-2001	Gold
Cantung *	1962-1986 2002-2003 2005	Tungsten
Carmacks Copper	permitting	Copper
Clinton Creek	1967-1978	Asbestos
Division	scoping study	Coal
Faro	1969-1982 1986-1993 1995-1996 1997-1999	Zinc, lead, silver
Ketza River	1988-1990	Gold
Minto	fully permitted	Copper, gold
Mount Nansen	1967-1969 1975-1976 1997-1999	Gold, silver
Mount Skukum	1986-1988 2005: advanced exploration and feasibility study	Gold, silver
Red Mountain	advanced exploration and feasibility study	Molybdenum
Sa Dena Hes	1991-1992	Zinc, lead, silver
United Keno Hill	1921-1989 2005: pending sale to new operator	Silver, lead, zinc
Venus	1906-1911 1970-1971 1980-1982	Gold, silver
Wellgreen	1972	Nickel, copper, PGE
Whitehorse Copper	1967-1982	Copper, silver, gold
Wolverine	permitting	Zinc, silver, selenium

**Cantung is just over the border in NWT but is supplied from the Yukon.*

Drill core from the Marn copper-gold deposit in the Tombstone Mountains. (Yukon government).

Exploration potential

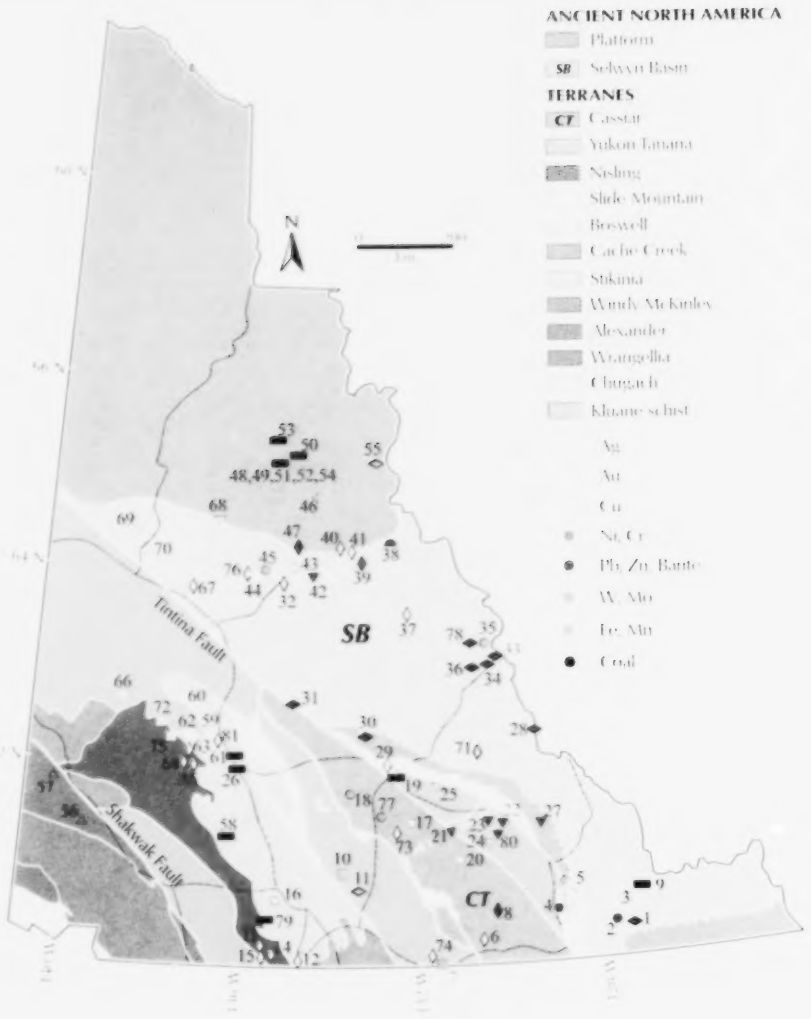
Exploration has uncovered over 80 mineral deposits with established reserves, some of which are of world-class stature. In addition, 2,700 mineral occurrences are found on mining claims that cover just 3.6 per cent of Yukon land. This is very rich land indeed! The Yukon has only just begun to tap its natural resources. It is poised to become a major player in the industry.

Epigenetic gold

Gold in the Yukon is primarily intrusive-related, but also occurs in orogenic systems. Recent exploration has focused on the Tintina Gold Province, where several mineral-rich districts coincide with extensive mid-Cretaceous plutons. The largest district is the Tombstone Gold Belt with its characteristic large low-grade deposits consisting of sheeted veins near the roofs of plutons. Other types of mineralization include skarns, veins, replacements, disseminations and hydrothermal breccias. The largest deposits include the Brewery Creek heap leach mine near Dawson (40 million tonnes of 1.4 grams/tonne gold), Dublin Gulch near Mayo (100 million tonnes of 1.1 grams/tonne gold) and Skukum Creek. The Fort Knox mine near Fairbanks, Alaska contains 7 million ounces (200 million grams) of gold at a grade of 0.9 grams/tonne; this gives an idea of the mineral potential in adjacent Yukon.

Epithermal gold environments include porphyry to epithermal transitions at Mount Nansen and Mount Freegold near Carmacks, and at the Mount Skukum mine. In addition, epithermal gold occurs in rift-related subaerial bimodal volcanic rocks at Grew Creek.

Orogenic gold mineralization is mostly associated with the polydeformed, greenschist-grade pericratonic meta-sedimentary and meta-igneous rocks of the Yukon-Tanana Terrane. Orogenic gold hasn't traditionally been a focus of exploration in the Yukon, despite approximately 20 million ounces (600 million grams) of placer gold having been recovered from the historic Klondike placer district, and associated goldfields. An orogenic source is suspected but significant motherlodes have not yet been discovered.



Iron oxide-copper-gold (IOCG)

Proterozoic breccia bodies occur in the Wernecke and Ogilvie mountains. Copper, cobalt, gold, silver, uranium and locally, molybdenum mineralization are found within breccia zones and in adjacent metasomatized country rock, giving rise to the potential presence of breccia-associated iron oxide-copper-gold deposits in the Yukon. The Wernecke Breccias are now thought to be related to the breccia-associated deposits in Australia including Olympic Dam and Ernst Henry. These ties are based on similar ages and physical characteristics and probable proximity of ancestral North America with Australia in Proterozoic time.

Selwyn Basin lead-zinc-silver sedimentary-exhalative (SEDEX) district

A prominent geological feature in the Yukon is the Selwyn Basin, a late Precambrian-Devonian depositional basin characterized by offshelf deep water shales in a basin bounded by platform carbonates to the northeast. The Tintina Fault truncates the basin on the southwest.

The area is well-known for lead-zinc-silver SEDEX massive sulphide deposits, which have been discovered in Cambrian (Faro or Anvil), Silurian (Howard's Pass) and Devonian (Macmillan Pass) shales. Mining of Faro deposits has occurred intermittently since 1969. The Faro district was discovered in 1953 and was the world's third largest zinc mine during its operation. The combined pre-mining mineral resource was 120 million tonnes grading 5.6 per cent zinc, 3.7 per cent lead and 45 to 50 grams/tonne silver.

The Grum, Grizzly and Swim deposits still contain a geological resource of 67 million tonnes, including some mineable reserves and drill-indicated resources. The prospective contact remains locally untested.

Exploration potential

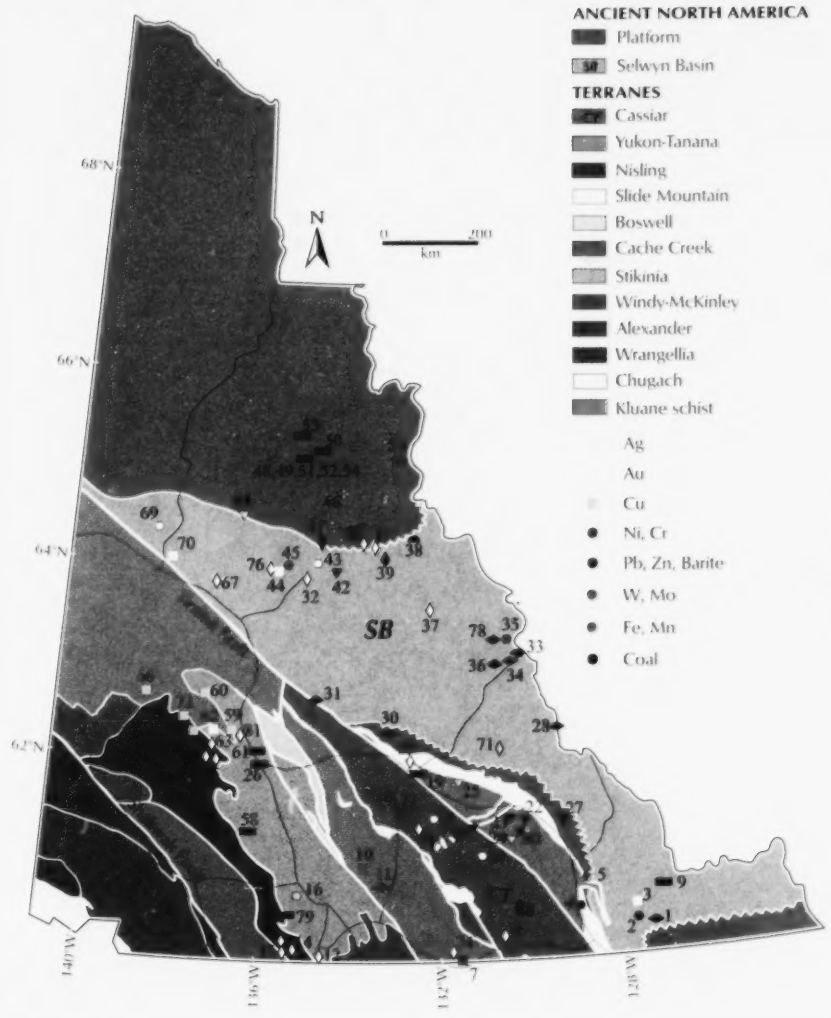
Exploration has uncovered over 80 mineral deposits with established reserves, some of which are of world-class stature. In addition, 2,700 mineral occurrences are found on mining claims that cover just 3.6 per cent of Yukon land. This is very rich land indeed! The Yukon has only just begun to tap its natural resources. It is poised to become a major player in the industry.

Epigenetic gold

Gold in the Yukon is primarily intrusive-related, but also occurs in orogenic systems. Recent exploration has focused on the Tintina Gold Province, where several mineral-rich districts coincide with extensive mid-Cretaceous plutons. The largest district is the Tombstone Gold Belt with its characteristic large low-grade deposits consisting of sheeted veins near the roofs of plutons. Other types of mineralization include skarns, veins, replacements, disseminations and hydrothermal breccias. The largest deposits include the Brewery Creek heap leach mine near Dawson (40 million tonnes of 1.4 grams/tonne gold), Dublin Gulch near Mayo (100 million tonnes of 1.1 grams/tonne gold) and Skukum Creek. The Fort Knox mine near Fairbanks, Alaska contains 7 million ounces (200 million grams) of gold at a grade of 0.9 grams/tonne; this gives an idea of the mineral potential in adjacent Yukon.

Epithermal gold environments include porphyry to epithermal transitions at Mount Nansen and Mount Freegold near Carmacks, and at the Mount Skukum mine. In addition, epithermal gold occurs in rift-related subaerial bimodal volcanic rocks at Grew Creek.

Orogenic gold mineralization is mostly associated with the polydeformed, greenschist-grade pericratonic meta-sedimentary and meta-igneous rocks of the Yukon-Tanana Terrane. Orogenic gold hasn't traditionally been a focus of exploration in the Yukon, despite approximately 20 million ounces (600 million grams) of placer gold having been recovered from the historic Klondike placer district, and associated goldfields. An orogenic source is suspected but significant motherlodes have not yet been discovered.



Iron oxide-copper-gold (IOCG)

Proterozoic breccia bodies occur in the Wernecke and Ogilvie mountains. Copper, cobalt, gold, silver, uranium and locally, molybdenum mineralization are found within breccia zones and in adjacent metasomatized country rock, giving rise to the potential presence of breccia-associated iron oxide-copper-gold deposits in the Yukon. The Wernecke Breccias are now thought to be related to the breccia-associated deposits in Australia including Olympic Dam and Ernst Henry. These ties are based on similar ages and physical characteristics and probable proximity of ancestral North America with Australia in Proterozoic time.

Selwyn Basin lead-zinc-silver sedimentary-exhalative (SEDEX) district

A prominent geological feature in the Yukon is the Selwyn Basin, a late Precambrian-Devonian depositional basin characterized by offshelf deep water shales in a basin bounded by platform carbonates to the northeast. The Tintina Fault truncates the basin on the southwest.

The area is well-known for lead-zinc-silver SEDEX massive sulphide deposits, which have been discovered in Cambrian (Faro or Anvil), Silurian (Howard's Pass) and Devonian (Macmillan Pass) shales. Mining of Faro deposits has occurred intermittently since 1969. The Faro district was discovered in 1953 and was the world's third largest zinc mine during its operation. The combined pre-mining mineral resource was 120 million tonnes grading 5.6 per cent zinc, 3.7 per cent lead and 45 to 50 grams/tonne silver.

The Grum, Grizzly and Swim deposits still contain a geological resource of 67 million tonnes, including some mineable reserves and drill-indicated resources. The prospective contact remains locally untested.

VEIN/BRECCIA ASSOCIATED
6 Hart (Ag)
8 Logan (Zn, Ag)
12 Venus (Au, Ag, Pb, Zn)
13 Skukum (Au)
14 Goddell (Au)
15 Mt Reid (Au, Ag)
29 Grew Creek (Au)
32 United Keno Hill (Ag, Pb, Zn)
37 Plata/Inca (Ag, Au)
39 Craig (Pb, Zn, Ag)
40 Vera (Ag, Pb, Zn)
41 Val (Ag, Pb, Zn)
47 Blende (Ag, Pb, Zn)
63 Laforma (Au)
64 Mount Nansen (Au, Ag)
65 Brown-McDade (Au, Ag)
67 Zeta (Ag)
71 Pike (Cu, Ag)
73 Groundhog (Ag, Pb, Zn)
74 Logjam (Ag, Au)
76 Peso (Ag, Pb)
81 Tinta (Ag, Pb, Zn, Cu, Au)

SKARN/REPLACEMENT ASSOCIATED
2 McMillan (Ag, Pb, Zn)
4 Sa Dena Hes (Zn, Pb)
5 Bailey (W)
16 Whitehorse Copper (Cu, Au)
17 Ketza (Au)
18 Risby (W)
20 Tintina (Ag, Pb, Zn)
35 Mactung (W)
43 Clark (Ag, Pb, Zn)
45 Ray Gulch (W)
69 Marn (Au, Cu, W)
77 Stormy (W)

PORPHYRY/SHEETED VEIN ASSOCIATED
1 Hyland Gold (Au)
7 Logtung (W, Mo)
10 Red Mountain (Mo)
44 Dublin Gulch (Au)
59 Williams Creek (Cu, Au)
60 Minto Det (Cu, Au)
62 Antoniuk (Au)
66 Casino (Cu, Au)
70 Brewery Creek (Au)
72 Cash (Cu, Mo)
75 Nucleus (Cu)

MISSISSIPPI VALLEY TYPE
38 Goz (Zn)

SEDIMENT ASSOCIATED
1 Mel (Zn, Pb, Barite)
11 Marlin (Rh)
28 Howard's Pass (Zn, Pb)
30 Faro, Grum, Vangorda, Grizzly, Swim (Zn, Pb, Ag)
31 Clear Lake (Pb, Zn, Ag)
33 Tom (Zn, Pb, Ag, Barite)
34 Jason (Zn, Pb, Ag, Barite)
36 Samovar (Barite)
55 Crest (Fe)
78 Walt (Barite)

VOLCANIC ASSOCIATED
21 Wolf (Zn, Pb, Ag)
22 Wolverine (Cu, Pb, Zn, Ag, Au)
23 Kudz Ze Kayah (Cu, Zn, Pb, Au)
24 Fyre (Cu, Co, Au)
25 Ice (Cu)
27 Matt Berry (Pb, Zn, Ag)
42 Marg (Cu, Zn, Pb, Ag, Au)
68 Hart River (Cu, Zn, Pb, Ag, Au)
80 GP4F (Zn, Pb, Cu, Ag, Au)

MAFIC to ULTRAMAFIC ASSOCIATED
56 Wellgreen (Ni, Cu, Pt, Pd)
57 Canalask (Ni)

WERNECKE BRECCIA
46 Pagisteel (Fe)

COAL
9 Sulpetro (coal)
19 Whiskey Lake (coal)
26 South Tantalus (coal)
48 Marathon (coal)
49 Pole (coal)
50 Garlic Ring (coal)
51 Illtyd (coal)
52 Pan Ocean (coal)
53 Deslaurier (coal)
54 Spaceship (coal)
58 Division (coal)
61 Tantalus (coal)
79 Whitehorse Coal (coal)

(Yukon Geological Survey)

even close to known deposits, opening up the potential for new discoveries. Deposits of the Anvil camp are road-accessible and are served by the town of Faro. Other deposits such as Tom, Jason, Clear Lake and Howard's Pass remain undeveloped.

In the Macmillan Pass area, the Tom claims were staked in 1951. Published mineable reserves for the Tom East and West zones are 9,283,700 tonnes grading 69.4 grams/tonne silver, 7.5 per cent lead and 6.2 per cent zinc using a 7 per cent combined zinc+lead cutoff grade. The Jason deposit was staked in 1974 and is located at the same stratigraphic level as the Tom deposit. It contains an indicated mineral resource of 14.1 million tonnes of 79.9 grams/tonne silver, 7.09 per cent lead and 6.57 per cent zinc, using a cut-off grade of 8 per cent combined lead+zinc. The Tom and Jason deposits are accessible from the North Canol Road and by an airstrip located between the two deposits.

Active exploration for lead and zinc in the late 1960s and 1970s led to the staking of the Howard's Pass district in 1972. The drill-indicated geological resource for the XY and Anniv deposits total 110.5 million tons of 5.4 per cent zinc and 2.3 per cent lead, based on a 4.5 per cent combined lead+zinc cut-off; inferred reserves are in excess of 363 million tonnes.

Although known primarily for SEDEX deposits, the geographic extent of the Selwyn Basin also contains several other deposit types. Exploration activities have outlined tungsten skarn (Mactung), stratiform barite (Tea), intrusion-related gold systems, silver-lead vein (Keno Hill), stratiform nickel (Nick) and volcanogenic massive sulphide (VMS, e.g., Marg) occurrences and deposits.

Lee Pigage (left) of the Yukon Geological Survey and Robin Tolbert of Ross River Minerals examine drill core from the Tay-LP property. (Yukon government)

Tungsten

Yukon and adjacent Northwest Territories host an extraordinary endowment of tungsten mineralization. The region has a resource of approximately 1 million tonnes of contained metal, representing 15 per cent of the world's reserves. Nearly 70 per cent of all Yukon tungsten deposits are scheelite skarns developed in Selwyn Basin Cambrian limestone near contacts with mid-Cretaceous plutons; 'porphyry' and vein occurrences form much of the remainder. In approximately half the Yukon occurrences, tungsten is associated with copper, molybdenum and lead-zinc. Tin is found in only a few occurrences. Scheelite is the dominant tungsten mineral in all the skarns and about 95 per cent of the other Yukon occurrences. Only a few significant wolframite occurrences are known, the most notable being the Kalzas deposit.

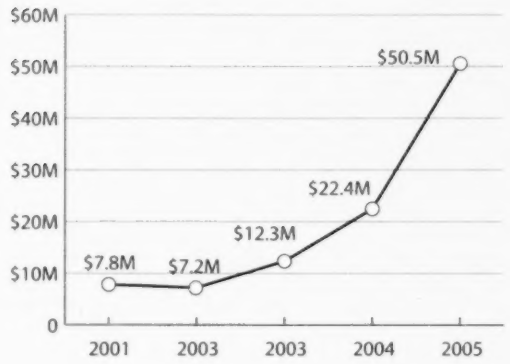
Discovered in 1959, the Cantung deposit was the western world's largest tungsten producer during its operation from 1962 to 1986. It is just over the Yukon border, in the Northwest Territories, but all access to the deposit is through the Yukon. Approximately 31,185 tons (28 290 tonnes) of tungsten metal had been produced to December 1985. The mine was again in production from November 2001 to December 2003 and reopened in 2005.

Finlayson Lake Volcanogenic Massive Sulphide (VMS) District

The potential for VMS copper-lead-zinc-silver-gold deposits associated with mid-Paleozoic volcanic rocks of Yukon-Tanana Terrane in the Finlayson Lake district

This rock sculpture, created by Rick Zuran, comprises hand-picked, high-grade metal ores from major deposits in the Yukon. From left to right: lead-zinc-silver from Faro; gold-silver from Skukum Creek; zinc from Goz; gold from Ketza; copper-gold-silver from Whitehorse Copper; tungsten from MacTung.

Yukon exploration and development expenditures (Yukon government)



was first recognized with the discovery of the Kudz Ze Kayah deposit in 1994 (11.1 million tonnes of 5.9 per cent zinc, 1.6 per cent lead, 0.9 per cent copper, 1.37 grams/tonne silver, 1.33 grams/tonne gold). Since then, the Wolverine (3.75 million tonnes of 12.5 per cent zinc, 1.4 per cent lead, 1.4 per cent copper, 336.6 grams/tonne silver, 1.6 grams/tonne gold) and other deposits have been discovered. These include Ice (4.5 million tonnes of 1.48 per cent copper), Fyre Lake (8.2 million tonnes of 2.1 per cent copper, 0.11 per cent cobalt, 0.73 grams/tonne gold) and GP4F (1.5 million tonnes of 6.4 per cent zinc, 3.10 per cent lead, 0.10 per cent copper, 90 grams/tonne silver and 2.0 grams/tonne gold). Recent geological mapping in this district by the Yukon Geological Survey has shown that that there are at least four discrete packages of felsic and mafic volcanic rocks with the potential to host VMS deposits. In 2005, the Wolverine deposit was the focus of a major program of underground test mining and feasibility studies.

Coal

Coal is found in Mississippian, Jurassic, Cretaceous and Tertiary non-marine sequences which underlie as much as 37 000 km^2 of the Yukon. The largest deposits and those with the greatest potential are located within the mid-Cretaceous to Eocene strata of the Bonnet Plume Basin (Marathon, Pole, Wernecke, Garlic Ring, Illtyd, Pan Ocean and Deslaurier) of northeastern Yukon. The Basin is a pull-apart feature related to strike-slip faults of the Richardson Fault Array. Coal also occurs within the Jura-Cretaceous sedimentary rocks in the Whitehorse Trough (Division Mountain, Whitehorse Coal), which developed as a forearc basin on the eastern side of the Stikine arc. These deposits formed in fan deltas which separated the emerging arc terrain from flyschoid environments within the Trough. Some deposits occur in Cretaceous to Eocene pull-apart basins along the Tintina Fault. Coal deposits also are documented in the southeast Yukon's Rock River basin, a 50 km by 10 km graben or half graben filled with Late Cretaceous to Eocene sediments. Exploration has not yet advanced to the point where reserves can be calculated.

Coloured gemstones

The Regal Ridge project of True North Gems Inc. is evaluating an emerald occurrence discovered in 1998 in the Finlayson Lake district. Exploration has resulted in the discovery of new emerald-bearing zones. Surface and underground bulk-sampling continue to examine the potential of gem- and near-gem quality emerald production. ◆

The Yukon is connected to the global marketplace

Air: International airport with direct flights from Vancouver, Edmonton, Calgary, Northwest Territories, Alaska and Germany; 10 community airports and numerous small airstrips.

Ports: Proximity to two commercial ice-free ports. Direct access to the Yukon and Asia through Alaska ice-free ports, 160 km south of Whitehorse. Ports are closer to Asia than to Vancouver.

Roads: 4,700 km of all-weather roads linking to Alaska, Northwest Territories, southern Canada and United States.

Energy: Stable, clean energy system. Hydro generators produce over 80 per cent of capacity, supplemented by diesel plants and renewable energy. Large potential for hydro and wind development.

Telecommunications: Broadband network in all communities.

MINING TAXATION, INCENTIVES, ROYALTIES

Examining gold mineralization in trenching at the Tay-LP property. (Yukon government)

Yukon Mineral Exploration Tax Credit is a refundable corporate and personal income tax credit of 25 per cent of eligible mineral exploration expenditures incurred by eligible individuals and corporations conducting off-minesite exploration in Yukon up to March 31, 2007.

This rebate is for eligible exploration expenditures as determined under the same federal government rules used to determine eligible Canadian Exploration Expense deductions. The credit is refundable, which means that a prospector or junior company that does not have taxable income will receive a cheque from Revenue Canada for the amount of the refund upon filing of their annual tax return. Companies based outside of the Yukon, with substantial programs in the territory, have successfully taken advantage of this credit.

For more information and to obtain a copy of the forms, visit *yukonmining.com*.

Federal flow through shares

The Canadian federal government offers a 100 per cent deduction of eligible exploration expenditures which are deductible from the federal portion of one's taxes. In the Yukon, eligible corporations who finance exploration activity with flow-through shares may claim the Yukon Mineral Exploration Tax Credit for eligible expenses, even if those expenses are flowed through to investors.

Fuel tax exemptions and rebates

Fuel purchases in the Yukon are tax-exempt for off-road exploration and mining activities. This includes gasoline, diesel and aviation fuels. There are no propane or heating taxes. Businesses can also apply for a refund on any fuel taxes, paid at the time of purchase, up to six years after the purchase date.

Yukon Mining Incentives Program

The Yukon Mining Incentives Program (YMIP) is designed to promote and enhance mineral prospecting, exploration and development activities in Yukon by providing a portion of the risk capital required to locate and explore mineral deposits. YMIP has a maximum yearly contribution limit of between $10,000 and $20,000 depending on the module applied for. Information on this and other incentives being offered to the mineral exploration community is found at *yukonmining.com*.

Royalties

The Yukon's royalty system for hardrock mines is based on a percentage of mine profits. The rules are clearly defined in legislation and based on a sliding percentage scale tied to the mine operation's profitability. Annual royalties are payable to the government on mine profits in excess of $10,000.

Economic Development Funds

The Department of Economic Development has a number of development funds targeted at communities, regional development and strategic industries development. Information on the various funds is available at *www.economicdevelopment.gov.yk.ca*. ◆

YUKON FIRST NATIONS AND MINING

All of the 14 First Nations in the Yukon have been involved in land claim negotiations; the majority of them have settled their claims (including those in Whitehorse) with the remainder being close to resolution. The Yukon government is establishing government-to-government relationships with all 14 First Nations to ensure participation in Yukon resource development. This mutually constructive approach has ushered in a new era of economic partnerships and positive investment opportunities by creating certainty of land tenure for those exploring for minerals.

The Yukon government encourages and facilitates partnership opportunities with First Nations, industry and investors, for the benefit of all. ◆

Copper-gold mineralization exposed in talus on Copper Ridge's Hart River property. (Yukon government)

YUKON FACTS AND FIGURES

Government

The Yukon Legislative Assembly consists of 18 elected members and functions in much the same way as a provincial legislature.

Yukon land	km²
Forest lands	281,030
Non-forest lands	197,940
Total land area	*478,970*
Freshwater area	4,480
Total area of the Yukon	**483,450**

The Yukon represents 4.8 per cent of Canada's total land area. Mount Logan, in the St. Elias Mountains, is the highest point in the Yukon and Canada, with an elevation of 5,959 metres above sea level.

Temperature: Daily average (1971-2000)

	January (Celsius)	July (Celsius)
Dawson	-26.7	15.6
Watson Lake	-24.2	15.1
Whitehorse	-17.7	14.1

Precipitation: Average annual totals (1971-2000)

	Rain (mm)	Snow (cm)
Dawson	199.9	160.0
Watson Lake	255.2	196.5
Whitehorse	163.1	145.0

Population as of December, 2002

Total Yukon	29,960
Dawson City	1,818
Watson Lake	1,555
Whitehorse	22,131

Road surfaces maintained (km)

Trunk highways		Other roads	
• Pavement	249.0	- Bituminous surface	42.2
• Bituminous surface	1,867.5	- Gravel	1032.2
• Gravel	1,611.1	*Total other roads*	*1,074.4*
Total trunk highways	*3,727.6*		
Total, all roads	**4,802.0**		

Yukon Gross Domestic Product wages and salaries, 2003

Wages and salaries	$648 million
GDP (at market prices)	$1,089 million

CONTACT INFORMATION

Department of Energy, Mines and Resources
Government of Yukon
Box 2703 Whitehorse, Yukon, Canada Y1A 2C6
Phone: (867) 667-8256, Fax: (867) 667-8601
E-mail: mining@gov.yk.ca
www.yukonmining.com

Department of Economic Development
Strategic Industries
Government of Yukon
Box 2703 Whitehorse, Yukon, Canada Y1A 2C6
Phone: (867) 456-3920, Fax: (867) 393-6228
Email: ecdev@gov.yk.ca
www.economicdevelopment.gov.yk.ca

Yukon Geological Survey
Department of Energy, Mines and Resources
Box 2703 Whitehorse, Yukon, Canada Y1A 2C6
Phone: (867) 667-8508, Fax: (867) 393-6232
E-mail: geology@gov.yk.ca
www.geology.gov.yk.ca

Yukon Chamber of Mines
Phone: (867) 667-2090, Fax: (867) 668-7127
E-mail: info@ycmines.ca
www.ycmines.ca

Klondike Placer Miners' Association
Phone: (867) 667-2267, Fax: (867) 668-7127
E-mail: kpma@kpma.ca
kpma.ca

Yukon Prospectors' Association
Phone: (867) 668-7985
E-mail: ypa@northland.com
www.north-land.com

Geological Survey of Canada
Natural Resources Canada
601 Booth Street, Ottawa, Ontario, Canada K1A 0E8
Phone: (613) 995-3084, Fax: (613) 995-3082
www.nrcan.gc.ca

YUKON GEOLOGICAL SURVEY

Yukon Government

August, 2005